



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/561,810	12/21/2005	Luc De Keyser	Q92080	2868
23373	7590	11/25/2008	EXAMINER	
SUGHRUE MION, PLLC			HOLLOMAN, NANETTE	
2100 PENNSYLVANIA AVENUE, N.W.				
SUITE 800			ART UNIT	
WASHINGTON, DC 20037			PAPER NUMBER	
			1612	
			MAIL DATE	
			DELIVERY MODE	
			11/25/2008	
			PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/561,810

**Applicant(s)**

DE KEYSER, LUC

**Examiner**

NANNETTE HOLLOMAN

**Art Unit**

1612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 17-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/88)
- Paper No(s)/Mail Date 04/20/2006, 03/16/2006, 12/21/2005
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_



## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election with traverse of Group I (claims 1-16) and the species phyto in the reply filed on August 11, 2008 is acknowledged. The traversal is on the ground(s) that the present invention only covers the use of chlorophyll when feeding it to ruminant animals, since non-ruminant animals cannot metabolize chlorophyll. This is not found persuasive because claim 1 is directed to "livestock animals", which include ruminant and non-ruminant animals.

The requirement is still deemed proper and is therefore made FINAL.

Claims 17-27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on August 11, 2008.

### ***Information Disclosure Statement***

The information disclosure statements filed March 03, 2006 and December 21, 2005 fail to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered. Those not considered are not legible.

### ***Claim Objections***

Claim 8 is objected to because of the following informalities: the word "are" is missing from the claim between the words product and eggs. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely

exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

1) In the present instance, claim 1 recites the broad recitation "livestock product", and the claim also recites "in particular in skeletal meat, milk and/or eggs" which is the narrower statement of the range/limitation.

2) In the present instance, claim 1 recites the broad recitation "at least" 5 x F meq, and the claim also recites "preferable at least" and "most preferably at least" which is the narrower statement of the range/limitation

3) In the present instance, claim 6 recites the broad recitation "livestock product", and the claim also recites "in particular in skeletal meat" which is the narrower statement of the range/limitation.

4) In the present instance, claim 7 recites the broad recitation "non-ruminant mammals", and the claim also recites "preferable non-rodent" which is the narrower statement of the range/limitation.

5) In the present instance, claims 8-12 recites the broad recitation "at least" a certain percentage, and the claim also recites "preferably of at least" and "more preferable" another percentage which is the narrower statement of the range/limitation.

6) In the present instance, claim 14-15 recites the broad recitation "at least", and the claim also recites "preferably at least" (15), "more preferable" and "most preferable" which is the narrower statement of the range/limitation.

The term "F" in claims 1-16 is a relative term which renders the claim indefinite. The term "F" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

1) Claims 1-6 and 11-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. (JP355061768A, English abstract, as disclosed by applicant) in view of McCarty (Medical Hypotheses, 2001, as disclosed by applicant).

Yamamoto et al. disclose a fish feed containing 0.05-1% chlorophyll. Yamamoto et al. disclose fish that are suitable for human consumption, i.e. tilapia and carp. Yamamoto et al. disclose the addition of chlorophyll promotes the growth of fish.

Yamamoto et al. does not explicitly disclose a specific time period for feeding the fish.

McCarty discloses the chlorophyll metabolite phytanic acid has been shown to be a natural ligand for RXR, active in concentrations near its physiological levels. McCarty further discloses phytanic acid may have utility for treatment and prevention of human type 2 diabetes (p. 217, Summary).

It would have been obvious to one of ordinary skill in art at the time of the invention to use the fish of Yamamoto et al. for human consumption motivated by the desire to increase the amount of the chlorophyll metabolite phytanic acid in the diet of a human for the treatment of human type 2 diabetes as disclosed by McCarty.

The feeding period of at least once a day for 3 or more days is merely one of several possibilities and is considered to constitute optimization and is within the scope and skill of an artisan skilled in the art by routine experimentation. The amount of PPAR/RXR present in the skeletal meat of the livestock animal is considered to be directly proportional to the amount feed to the animal and is considered to constitute



optimization and is within the scope and skill of an artisan skilled in the art by routine experimentation. See MPEP 2144.05.

2) Claims 1-11 and 13-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Gang (KR 10-0241973, English translation of Abstract) and further in view of McCarty (Medical Hypotheses, 2001, as disclosed by applicant).

Gang discloses a feed for livestock containing chlorophyll to enhance the quality of meat of the livestock (p.1, Purpose and Constitution). Gang discloses livestock animal as, i.e. a pig (p. 2, paragraph 2), and it being understood that livestock animals include all animals raised on a farm to include, i.e. cow, chicken and pig, and products of these animals include skeletal meat, milk and eggs.

Gang does not explicitly disclose a specific time period for feeding the livestock.

McCarty discloses the chlorophyll metabolite phytanic acid has been shown to be a natural ligand for RXR, active in concentrations near its physiological levels. McCarty further discloses phytanic acid may have utility for treatment and prevention of human type 2 diabetes (p. 217, Summary).

It would have been obvious to one of ordinary skill in art at the time of the invention to use the livestock of Gang for human consumption motivated by the desire to increase the amount of the chlorophyll metabolite phytanic acid in the diet of a human for the treatment of human type 2 diabetes as disclosed by McCarty.

The feeding period of at least once a day for 3 or more days is merely one of several possibilities and is considered to constitute optimization and is within the scope

and skill of an artisan skilled in the art by routine experimentation. The amount of PPAR/RXR present in the skeletal meat of the livestock animal is considered to be directly proportional to the amount feed to the animal and is considered to constitute optimization and is within the scope and skill of an artisan skilled in the art by routine experimentation. See MPEP 2144.05.

### ***Conclusion***

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NANNETTE HOLLOMAN whose telephone number is (571) 270-5231. The examiner can normally be reached on Mon-Fri 800am-500pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frederick Krass can be reached on 571-272-0580. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. H./  
Examiner, Art Unit 1612

/Frederick Krass/  
Supervisory Patent Examiner, Art Unit 1612